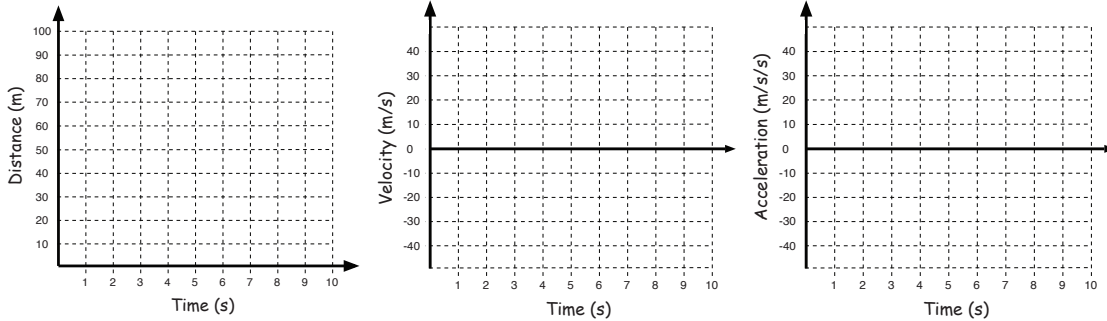


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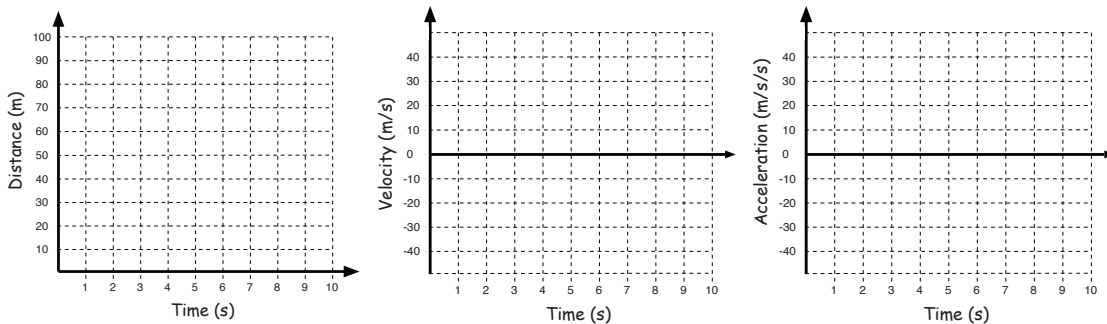
Example Problems

2.1 Simple Motion

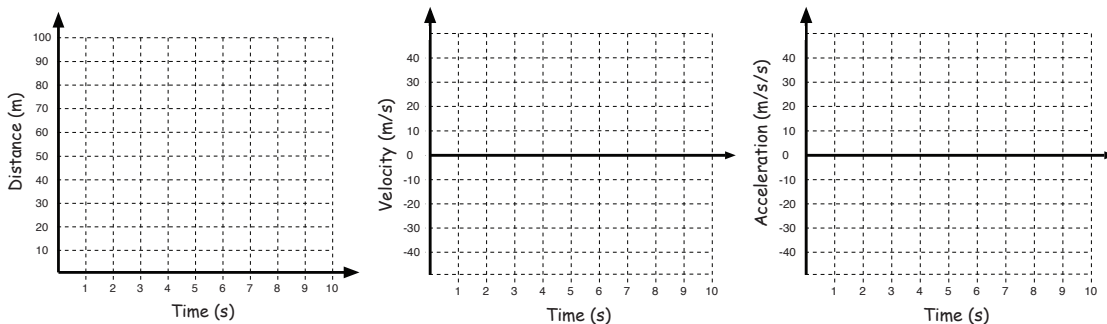
- Example 1:
 - In each of the graphs bellow (distance vs time, velocity vs time, acceleration vs time), sketch the motion of an object that is traveling at constant velocity and moving away from a source.



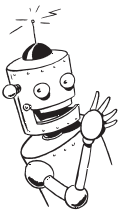
- Example 2:
 - In each of the graphs bellow, sketch the motion of an object that is traveling at constant velocity and moving towards a source.



- Example 3:
 - In each of the graphs bellow, sketch the motion of an object that is moving with constant positive acceleration and moving away from a source. An example is an object going down a ramp.

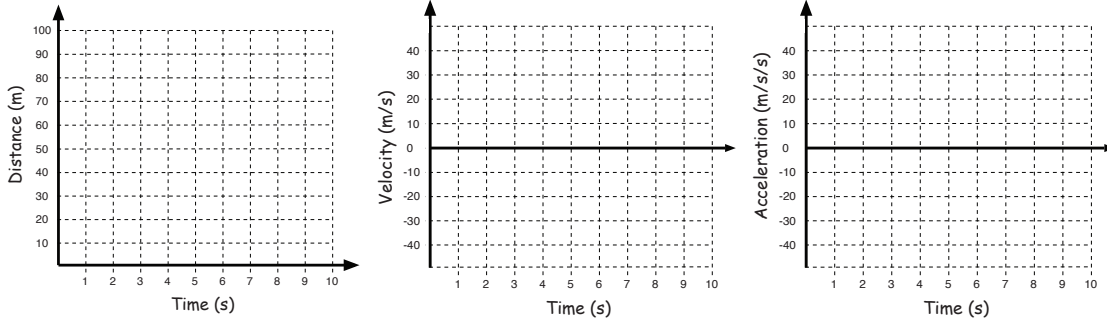


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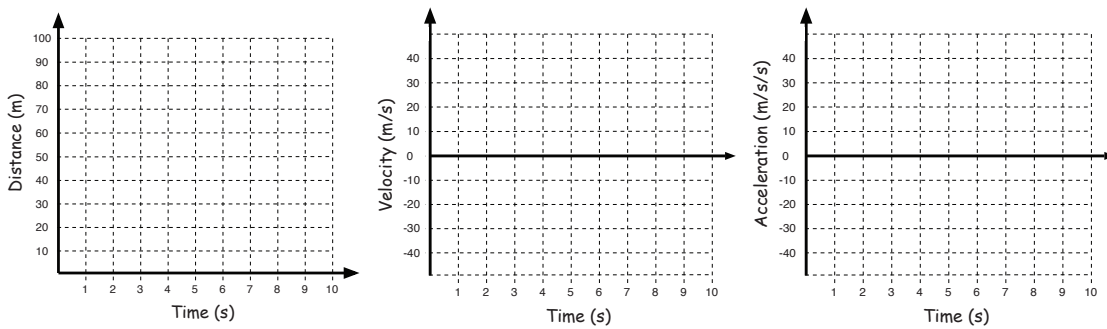


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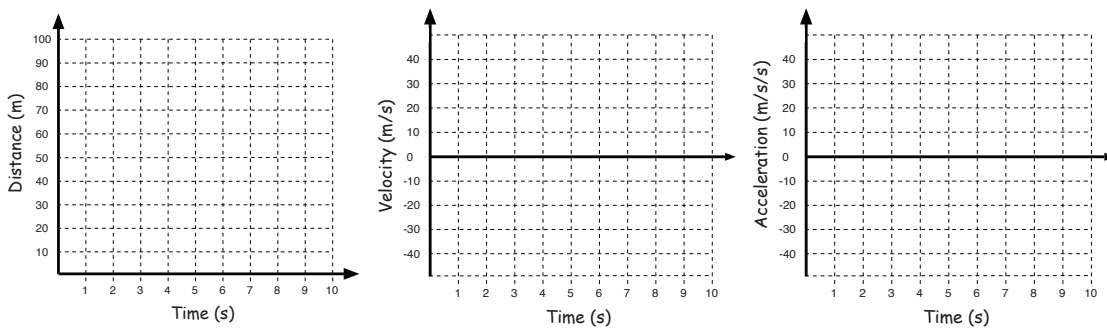
- Example 4:
 - In each of the graphs below, sketch the motion of an object that is moving with constant positive acceleration and moving towards a source. An example is an object going down a ramp.



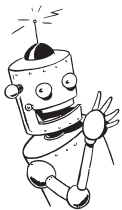
- Example 5:
 - In each of the graphs below, sketch the motion of an object that is moving with constant negative acceleration and moving away from a source. An example is an object going up a ramp.



- Example 6:
 - In each of the graphs below, sketch the motion of an object that is moving with constant negative acceleration and moving towards a source. An example is an object going up a ramp.

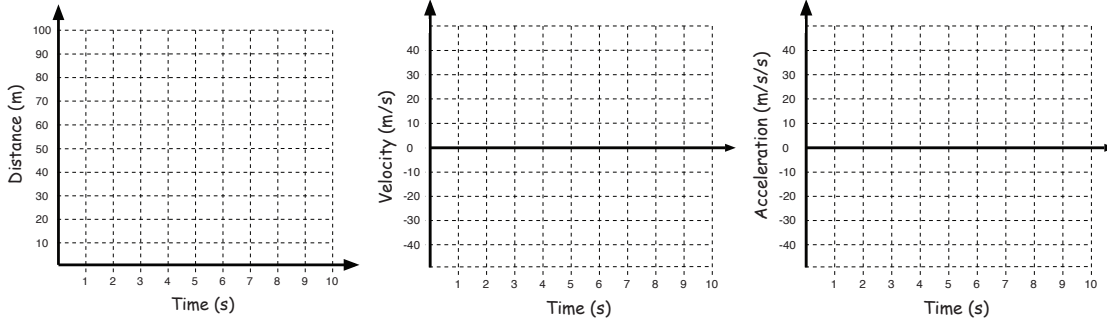


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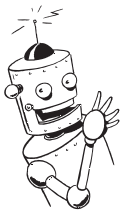
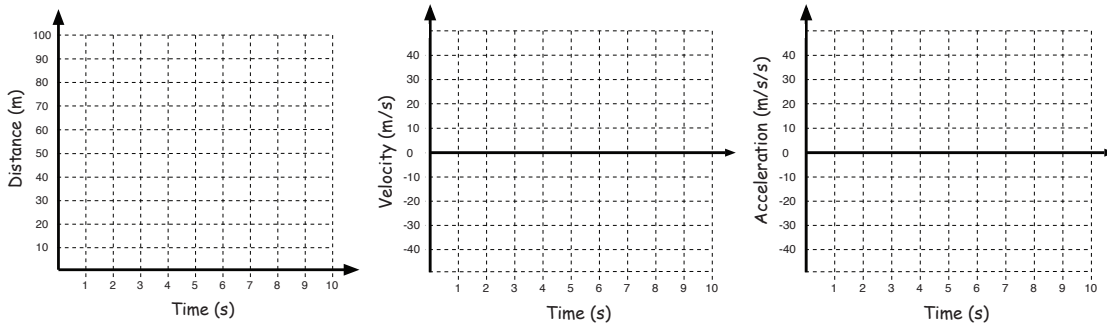


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- Example 7:
 - In each of the graphs bellow, sketch the motion of an object that is in free fall moving and away from a source.

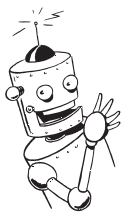


- Example 8:
 - In each of the graphs bellow, sketch the motion of an object that is moving away from a source but accelerating back to the source such as an object thrown up into the air or an object given a push up a hill.



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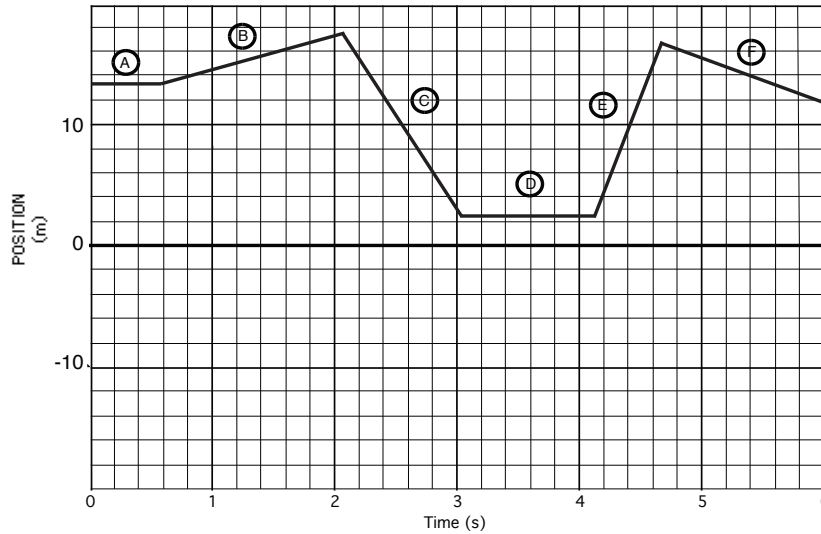


Chapter 2 Graphing Motion

Example Problems

2.2 Interpreting Distance vs Time Graphs

- Example 1:
 - Use the following distance vs time graph to answer the questions below:



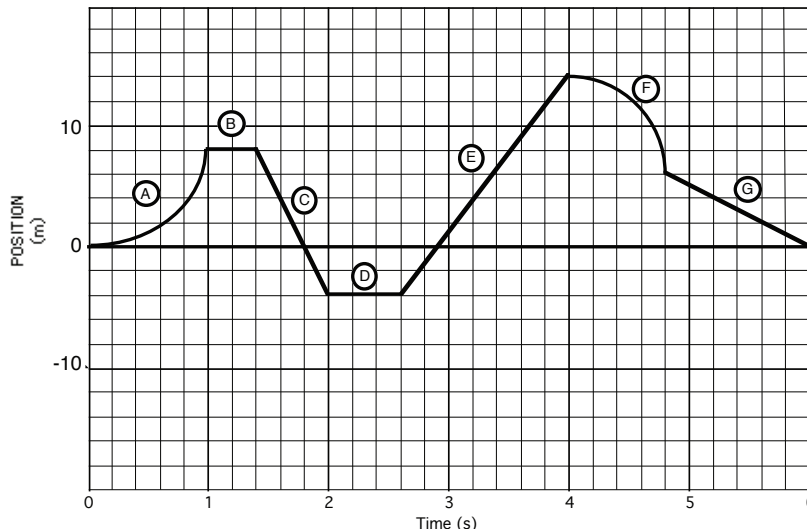
1. Which segment(s) of the graph represent moving away from the detector?
2. Which segment(s) of the graph represent not moving?
3. Which segment(s) of the graph represent moving toward the detector?
4. Which segment(s) of the graph represent moving away from the detector at the greatest speed?
5. Which segment(s) of the graph represent moving toward the detector at the greatest speed?
6. Which segment(s) of the graph represent moving away from the detector at the lesser speed?
7. Which segment(s) of the graph represent moving toward the detector at the lesser speed?

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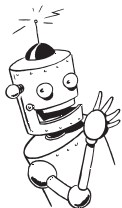


Chapter 2 Graphing Motion

Use the graph of distance vs time graph below to answer questions 8 - 18



8. Which segment(s) shows an object traveling at constant velocity?
9. Which segment(s) shows an object accelerating?
10. Which show segment(s) an object having no motion?
11. Which segment(s) shows an object traveling at constant positive velocity?
12. Which segment(s) shows an object traveling at constant negative velocity?
13. Which segment(s) shows an object traveling at constant positive acceleration?
14. Which segment(s) shows an object traveling at constant negative acceleration?
15. Which show segment(s) show the greatest constant positive velocity?
16. Which show segment(s) show the greatest constant negative velocity?
17. How far has the object traveled in 4 seconds?
18. What is the instantaneous velocity at 3.2 seconds?
19. What is the instantaneous velocity at 5.2 seconds?

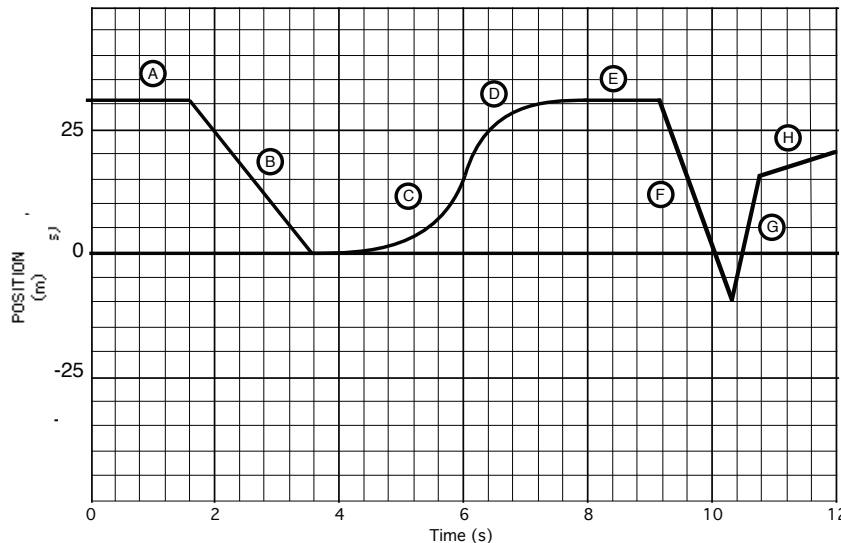


Chapter 2 Graphing Motion

Student Problems

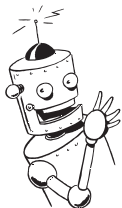
2.2 Interrupting Distance vs Time Graphs

Use the graph of distance vs time graph below to answer questions 1 - 11



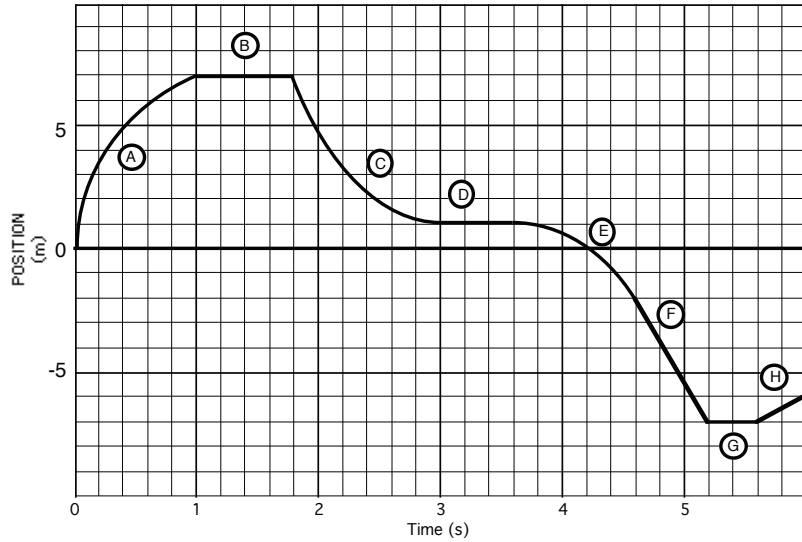
1. Which segment(s) shows an object traveling at constant velocity?
2. Which segment(s) shows an object accelerating?
3. Which show segment(s) an object having no motion?
4. Which segment(s) shows an object traveling at constant positive velocity?
5. Which segment(s) shows an object traveling at constant negative velocity?
6. Which segment(s) shows an object traveling at constant positive acceleration?
7. Which segment(s) shows an object traveling at constant negative acceleration?
8. Which show segment(s) show the greatest constant positive velocity?
9. Which show segment(s) show the greatest constant negative velocity?
10. What is the instantaneous velocity at 5.2 seconds?
11. What is the instantaneous velocity at 6.2 seconds?

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Chapter 2 Graphing Motion

Use the graph of distance vs time graph below to answer questions 12 - 22



12. Which segment(s) shows an object traveling at constant velocity?
13. Which segment(s) shows an object accelerating?
14. Which show segment(s) an object having no motion?
15. Which segment(s) shows an object traveling at constant positive velocity?
16. Which segment(s) shows an object traveling at constant negative velocity?
17. Which segment(s) shows an object traveling at constant positive acceleration?
18. Which segment(s) shows an object traveling at constant negative acceleration?
19. Which show segment(s) show the greatest constant positive velocity?
20. Which show segment(s) show the greatest constant negative velocity?
21. What is the instantaneous velocity at 0.6 seconds?
22. What is the instantaneous velocity at 4.6 seconds?

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